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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,809	11/19/2003	Christopher J. Cookson	3053-067	8666

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EXAMINER
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SIRAJ, ABDUSAMED

ART UNIT	PAPER NUMBER
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2656

DATE MAILED: 12/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/717,809	<b>Applicant(s)</b> COOKSON ET AL.	
	<b>Examiner</b> Abdusamed Siraj	<b>Art Unit</b> 2652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                                       | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/30/04 &amp; 8/04/05</u> . | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because Fig. 6 does not include reference sign "70" mentioned on page 24, line 18 of the description. A proposed drawing correction or corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### *Claim Objections*

*aw* 2. Claims 6 is objected to because of the flowing informalities:

On line 1 of claim 6, the Examiner suggests replacing the term "PC" to ~~–Personal Computer–~~.  
Appropriate correction is required.

### *Specification*

3. The disclosure is objected to because of the following informalities:

On page 4, line 11 and 18, the Examiner suggests replacing the "then" to – than – and the "lef-handed" to – left handed –, respectively.

On page 11, line 22, the Examiner suggests replacing the "laser head 120" to – laser head 121–, as shown in Fig. 2.

On page 12, line 6, the Examiner suggests replacing the "140" to – 139 –, as shown in Fig. 2; and on line 8, inserting – have – in between "may" and "other."

On page 13, line 20, the Examiner suggests deleting the "in" in between "then," line 20, and "an error," on line 21.

On page 18, line 9, the Examiner suggests replacing the "122 (and/or 121)" to -102 -, since the whole paragraph is referring to Fig. 3, not Fig. 2.

On page 17, line 4, the Examiner suggests inserting "first" in between "the" and "internal" (to be consistent with the description of lines 5-6, page 17).

Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 11 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 recites, on line 2, the term "... a second read head being positioned to read the bottom side of the optical disc ..." is inconsistent with the recitation of the position of the read head in claim 10, which states that the "first read head" reads data from the bottom side of the disc, thus rendering the scope of the claim unclear.

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakayama et al. (US 20010008510), hereinafter, Nakayama, in view of Fujimura Shinsuke (JP 10021633), hereinafter, Shinsuke.

In regard to claim 1, Nakayama discloses an optical disc drive (Fig. 2) for reading data on a disc, a tray (Fig. 2, 310) supporting a disc, a housing (Fig. 2, 200) with an opening (Fig. 2, 230) defined by at least one wall (Fig. 1, 220), the tray being movable within the opening between an open position (Fig. 2) in which said disc can be placed on and removed from the tray, and a closed position (Fig. 1; note: figure 1 is perspective view with the tray being in a housed in state) in which data on the disc can be read;

a read head (Fig. 2, 500) mounted in the tray (Fig. 2, 310) and directed toward the bottom side of the disc and electrical circuitry including a motor (Fig. 17, element 421) rotating the disc.

In regard to claim 2, Nakayama discloses wherein the housing is sized to fit within a standard bay of a PC (as taught in column 9, [0148], the CD-ROM drive could be modified to suit other forms of disc drives, i.e., including disc drives mountable on personal computers).

In regard to claim 3, Nakayama discloses wherein the housing (Fig. 2, 200) is sized and shaped for integration within a laptop-type device (column 2, [0055], lines 3-5).

In regard to claim 4, Nakayama discloses wherein the wall extends over the tray (Fig. 1, 220).

In regard to claim 5, Nakayama discloses wherein the tray has a bottom wall (Fig. 2, 316) and the read head (Fig. 2, 500) is mounted on the bottom wall positioned to be adjacent the other (bottom) side of the disc (Fig. 25) when the tray is in the closed position.

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In regard to claim 6, Nakayama discloses a desktop PC (as taught in column 9 [0148], the CD-ROM drive is modifiable to suit other forms of disc drives, i.e., disc drives that could be mounted on personal computers) comprising a case (a case is inherent and well understood in the art as a housing box for all components of the computer sub-assembly to be placed and interconnected, which includes bays for installation of sub-assembly), a disc drive (Fig. 2) disposed in the bay, the disc drive including a housing (Fig. 2, 200) having a wall (Fig. 1, 220) defining an opening (Fig. 2, 230), a tray (Fig. 2, 310) fitted in the opening and being selectively (Fig. 2, 322) movable between an open position (Fig. 2,) to receive an optical disc and a closed position (Fig. 1; note: figure 1 is perspective view with the tray being in a housed in state) in which the optical disc is positioned for data exchange and a read head (Fig. 2, 500) attached to the tray.

In regard to claim 9, Nakayama discloses wherein the tray is formed with a hole (Fig. 3, 316a) through which the head reads the respective disc side (Fig. 25).

In regard to claim 10, Nakayama discloses a portable computing device (Fig. 2, 100) comprising a case (Fig. 1, 200) formed with an opening (Fig. 2, 230) having an interior wall (Fig. 3, 220, note: the exterior side of the wall is shown), a tray (Fig. 2, 310) movable within the opening (Fig. 1, 230) to allow an optical disc to be placed on the tray, a read head (Fig. 2, 500) disposed on the tray under the optical disc to selectively read data from its bottom side (Fig. 25, 600).

In regard to claim 11, Nakayama discloses wherein the tray is formed with a hole (Fig. 3, 316a), the read head (Fig. 2, 500) being positioned to read the bottom side of the optical disc (Fig. 25, the read head is shown therein to read the bottom side of the disc) through the hole (Fig. 3, 316a).

Nakayama, however, does not disclose, in regard to claim 1, a disc having data on two sides, a read head mounted on the wall and directed toward one side of the disc and a buffer storing data from the read head.

In regard to claim 6, Nakayama does not disclose an additional read head attached to the wall and the read heads being arranged to read respective opposite sides of the optical disc.

In regard to claim 7, Nakayama does not disclose a controller and a motor cooperating to read data from either side of the disc.

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In regard to claim 8, Nakayama does not disclose a controller and a motor cooperating to read data from both sides of the disc simultaneously.

In regard to claim 10, Nakayama does not disclose a second read head supported on the interior wall and positioned to selectively read data from the top side of the optical disc.

In regard to claim 12, Nakayama does not disclose a controller generating commands to the read heads to read data from the top and bottom sides sequentially.

In regard to claim 13, Nakayama does not disclose a controller generating commands to the read heads to read data from the top and bottom sides simultaneously.

Shinsuke, correspondingly, discloses, in regard to claims 1,6 and 10 a disc having data on two sides (Fig. 1, 30 & 31), a first and second read heads (Fig. 1, 13) mounted on the wall (note: it is inherent in the art of optical disc drive that read head be installed onto a supporting wall or frame) and directed toward each side of the disc (disc face 30) and buffers (Fig. 3, 16) storing data from the read heads.

In regard to claims 7, 8, 12 and 13, Shinsuke discloses a controller and a motor cooperating to read data from either side of the disc (Fig. 1, 20 and 18, respectively) as well as from both sides of the disc simultaneously (Fig. 1, and Para. [0012], lines 1 & 2) or sequentially (Para. [0010], lines 5-7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the optical disc drive of Nakayama with the above stated components of Shinsuke in order to provide an optical disk drive which can simultaneously record and reproduce signals (recorded data) on both recording surfaces of a double-sided disc (abstract, lines 1-4).

*Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 14, 15 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Fujimura Shinsuke (JP 10021633), hereinafter, Shinsuke.

In regard to claim 14, Shinsuke discloses an optical disc player (Fig. 1) comprising a housing (Fig. 1) with an opening (inherent) having first and second walls, the walls being opposite to each other (it is inherent in the art of optical disc drives to have an opening, for the insertion of optical disc, and opposite walls or supporting surfaces, where the pickups can be stably attached, and the walls to which the optical pickups are affixed to be in opposite position to each other); a first read head (Fig. 1, 13) disposed on one of the walls, a second read head (Fig. 1, 13, bottom pickup) and a mechanism (Fig. 1, 15, and Para. [0010], lines 3-4) selectively moving an optical disc between the read heads to allow the read heads to read data from the optical disc.

In regard to claim 15, Shinsuke discloses wherein said mechanism includes a tray (Fig. 1, 17) selectively movable between an open position (Fig. 1, inherent) in which it accepts the optical disc and a closed position (Fig. 1, inherent) in which the read heads read data on the disc.

In regard to claim 17, Shinsuke discloses wherein the second read head (Fig. 1, 13, bottom pickup) is attached to the second wall (Fig. 1, it should be noted that it is inherent in the art optical disc drive to have optical pickup be attached stably to a wall or supporting surface).

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shinsuke (JP 10021633), hereinafter, Shinsuke, in view of Nakayama et al. (US 20010008510), hereinafter, Nakayama.



For the rejection of Shinsuke as applied to claims 14 and 15, see the rejection above. In regard to claim 16, Shinsuke does not disclose wherein the second read head is attached to the tray.

Nakayama discloses wherein the second read head is attached to the tray (Fig. 2, 500).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the optical disc drive of Shinsuke with the above stated component of Nakayama so as to allow adjustment of the orientation of the pickup with respect to an information recording surface of the disc after manufacture, i.e., to allow the disc drive to perform skew adjustment and to maintain performance capabilities of the disc drive by making the chassis as flat as possible and its dimensions as precise as possible (page 1, Para. [0020 & 0014]).

8. Claims 14 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamauchi Hiroshi (JP 11007669), hereinafter, Hiroshi.

In regard to claim 14, Hiroshi discloses an optical disc player (Fig. 1) comprising a housing (Fig. 1, 10) with an opening (Fig. 1, the shown open space of the insertion slot) having first and second walls (Fig. 1, top side of inner case and bottom side of inner case, respectively), the walls being opposite to each other (Fig. 1); a first read head (Fig. 1, 20) disposed on one of the walls, a second read head (Fig. 1, 30) and a mechanism (Fig. 1, 12) selectively moving an optical disc (Fig. 1, 11) between the read heads to allow the read heads to read data from the optical disc.

In regard to claim 17, Hiroshi discloses wherein the second read head (Fig. 1, 30) is attached to the second wall (Fig. 1, pickup 30 is shown attached to the second wall or supporting base).

9. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi Hiroshi (JP 11007669), hereinafter, Hiroshi, in view of Yamashita et al. (US 6618341, hereinafter, Yamashita).

For the rejection of Hiroshi as applied to claims 14 and 17, see the rejection above. In regard to claim 18, Hiroshi does not disclose wherein the mechanism includes an arm selectively moving the disc in and out of the opening.

Yamashita discloses wherein the mechanism includes an arm selectively moving the disc in and out of the opening (Fig. 9A, 16).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the optical disc drive of Hiroshi with the above stated component of Yamashita so as to improve the proper insertion of disc to result in ease and stability (page 16, column 47-48).

### *Citation of Relevant Prior Art*

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hisakado et al. (US 406 534) disclose an optical disk apparatus for an optical disk having two sides for which data can be simultaneously recorded.

Takizawa et al. (US 5311 497) disclose an optical pickup can be inverted accurately and smoothly regardless of the skew operation of the optical pickup.

Funabashi et al. (US 5097 465) disclose a double-side playing optical player which plays both sides of a disk.

Kato et al. (US 20030063549) disclose mounting and dismounting of recording medium with a pickup mounted on the tray body.

Revis (US 2003/0123338) discloses an apparatus and method for providing continuous uninterrupted playback of a dual sided optical disk during side-to-side changing of the optical disk.

Sato et al. (US 5621713) disclose a disk player apparatus for moving a tray unit between the inside and the outside of an outer casing for loading a recording disk.

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*Conclusion*


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdu-samed Siraj whose telephone number is (571) 272-8199. The examiner can normally be reached on Mon - Fri (9:00 am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abdu Siraj

Art Unit 2652

  
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